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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,990	04/20/2005	Kenji Suzuki	270573US0PCT	6522
22850	7590	11/12/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
BERMAN, SUSAN W				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
11/12/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

Office Action Summary

Application No.

10/531,990

Applicant(s)

SUZUKI ET AL.

Examiner

/Susan W. Berman/

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-14 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-14 and 23-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/88)
Paper No(s)/Mail Date 4-20-05 4-23-07 7-18-08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Terminal Disclaimer

The terminal disclaimer filed on 09-11-2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Application Number 11/532244 has been reviewed and is accepted. The terminal disclaimer has been recorded. The terminal disclaimer obviates the provisional rejection of claims on the ground of nonstatutory obviousness-type double patenting.

Information Disclosure Statement

The related applications listed 08-25-2008 have been considered by the Examiner.

Reference "AW" has been initialed as having been considered by the Examiner in the IDS filed 09-11-2008. The reference was originally cited in the IDS filed 04-23-2007.

Copies of the Information Disclosure Statements filed by applicants on 04-20-2007, 04-23-2007 and 07-18-2008 are attached hereto. It is noted that reference "AW" was not cited on the IDS filed 04-20-2008. The IDS received 09-11-2008 is a copy of the IDS filed 04-23-2007 and is not attached hereto.

Response to Amendment

The rejection of claims 7-22 under 35 U.S.C. 112, second paragraph, is withdrawn in response to the amended claims.

Response to Arguments

Applicant's arguments filed 09-11-2008 and 10-03-2008 have been fully considered and found unpersuasive for the following reasons.

Applicant argues that WO '818 teaches that crosslinking by exposure to radiation is intended to be crosslinking of the acrylate monomers and not the styrene block copolymer. Applicant further argues that one would not have been motivated to combine the teachings of WO '818 and EP '134 because the greater crosslinking taught by EP '134 is not desired by WO '818. This argument is not persuasive because it is considered well within the ordinary skill of one skilled in the art at the time of the invention to control the extent of crosslinking desired by decreasing the amount of ethylenically unsaturated monomer when including an alkylstyrene monomer in the block copolymer. Further, it is not relevant whether greater crosslinking is desired by WO '818 as motivation to combine the teachings of the references in an obviousness rejection. WO '818 provides motivation to employ a styrene/ block copolymer in combination with a polyolefin in a composition and teaches that the block copolymer can be a block copolymer (a) of polystyrene and/or polyalkylstyrene blocks with poly(conjugated diene) blocks. EP '134 teaches advantages of a styrene block copolymer comprising an alkyl styrene monomer.

Applicant also argues that the comparative data for Comparative Examples 7-14 compared with Examples 1-6 of the invention show that employing an alkylstyrene monomer with styrene in the A block of the block copolymer according to the instantly claimed invention results in improved heat resistance and solvent resistance while not increasing hardness and maintaining flexibility. The properties relied upon are properties of pressed sheets obtained by

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electron beam exposure of compositions comprising a block copolymer and a polyolefin resin. The comparative data is not convincing showing of unexpected results for the following reasons. The data in Table 1 compared with Tables 3 and 4 shows an improvement in % heat deformation that may be attributed to an increase in crosslinking and, as such, is not an unexpected result. No improvement in solvent resistance (% toluene extraction) is noted. Furthermore the improvement in % heat deformation relied upon is shown to be obtained only when the polyolefin is polyethylene, the ratio of block copolymer to polyethylene is 20:80 and the mass percent of alkyl styrene in block A is 50% or 100%. Evidently the 20:80 ratio of A to B is a mass ratio, as set forth in claim 29. In any case the instant claims are not commensurate in scope with the evidence relied upon for patentability because the relative amounts of A and B in the block copolymer, the weight percent of alkyl styrene in the A block are not recited and the kind of polyolefin resin is not limited to polyethylene. Amendment of claim 7 to include the limitations of claims 28 and 29 would be favorably considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-14 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/908818 in view of EP 0 013 139.

WO '818 discloses sheets for flexographic printing plates prepared from compositions of 10-37% by weight of a block copolymer (a) of polystyrene and/or polyalkylstyrene blocks with poly(conjugated diene) blocks and more than 50% by weight of a component (b) plasticizer for preparing flexographic printing plate precursors for flexographic printing plates. Component (b) plasticizer is an oil or liquid polyolefin, preferably polyisoprene (page 7, lines 3-30). Component (c) is an ethylenically unsaturated monomer. Component (d) is a photoinitiator and crosslinking is by exposure to actinic radiation. WO '818 teaches that a FPP precursor comprises an uncured layer prepared from a photocurable polymer composition which is then selectively cured by image-wise exposure to light. WO '818 does not mention molding to obtain the layer or laminating to obtain the printing plate.

EP '139 discloses blends of poly(p-methylstyrene) with polyolefins that can be formed into shaped articles which can be crosslinked by irradiation (Abstract). The polymers can be copolymers of p-methylstyrene with 10 to 1 weight percent conjugated diene. The difference from the instantly claimed molded articles is that EP '139 does not teach using block copolymers of p-methylstyrene. EP '139 teaches that poly(alkylstyrene) can be crosslinked by irradiation, while polystyrene is not crosslinked by irradiation.

It would have been obvious to one skilled in the art at the time of the invention to employ a block copolymer of polystyrene and polyalkylstyrene blocks selected from the block copolymers taught by WO '818 in the composition disclosed by WO '818. The reason is that WO '818 teach that block copolymer (a) can be a block copolymer of polystyrene and/or polyalkylstyrene blocks with poly(conjugated diene) blocks. It would have been obvious to one skilled in the art at the time of the invention to employ an alkyl styrene, such as p-methylstyrene,

in the block copolymers disclosed by WO '818 in order to provide crosslinking of the alkylstyrene blocks, as taught by EP '139 in analogous art. WO '818 provides motivation by teaching that the disclosed block copolymers can be obtained from alkylstyrene monomers. EP '139 provides motivation by teaching that alkylstyrenes, such as p-methylstyrene, provide block copolymers wherein the styrene block is crosslinkable when irradiated.

With respect to claim 27, the instantly recited number-average molecular weights overlap the disclosed weight-average molecular weights set forth in WO '818. Therefore, those embodiments disclosed by WO '818 and encompassed by the instant claim recitation are anticipated. With respect to claim 29, WO '818 teaches compositions comprising 10-37% block copolymer, greater than 50% polyolefin and 12-25% ethylenically unsaturated monomer. Thus instantly claimed compositions wherein the block copolymer is presenting amounts from 20-37% and the polyolefin is present in amounts from 51-78% anticipate the instant claims because the ratio of 20 to 78 is close to 20 to 80.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Scidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
11/5/2008

/Susan W Berman/
Primary Examiner
Art Unit 1796

Application Number**Application/Control No.**

10/531,990

Examiner

/Susan W. Berman/

**Applicant(s)/Patent under
Reexamination**

SUZUKI ET AL.

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